

▼ Shown from left to right: SFM41, SFM42 Split-Flow Manifolds



- Split-Flow Manifolds improve safety, precision and control in lifting and lowering operations
- Pressure gauge, flow control valve in each outlet port; CR400 couplers installed in each inlet and outlet port
- Regulates both advance and retract speeds: lifting and lowering
- 1 inlet, 4 outlets. Maximum of 4 cylinders per manifold: SFM41 for single-acting cylinders, SFM42 for double-acting cylinders
- Minimum pump oil flow: 1,40 l/min to deliver 0,15 - 0,25 l/min per cylinder
- Maximum difference among outlets: 10% of the stroke (in 150 mm)
- More cylinders can be controlled simultaneously by connecting several SFM-models parallel.

## Improved safety on basic simultaneous lifting applications



### Pressure Gauges G2535L

Glycerine-filled pressure gauges are installed in each outlet pressure line to monitor the pressure of each cylinder.



### Optimum Performance

Minimum pump oil flow must be 1,40 l/min to deliver 0,15 - 0,25 l/min per cylinder. Enerpac recommends to use

Z-Class electric or gasoline pumps from the ZE5 and ZG-Series.



### SFP-Series, Split-Flow Pumps

When a higher accuracy is required across cylinder strokes in a multi-point lifting or lowering application Enerpac recommends

to use the SFP-Series Split-Flow Pumps.



### Contact Enerpac!

Contact the Enerpac office nearest to you for advice and technical assistance in the layout of your ideal Lifting

System or visit us at: [www.enerpac.com](http://www.enerpac.com).

Or ask Enerpac for assistance:

[enerpac.com/contact-us](http://enerpac.com/contact-us)



◀ To repair the foundation, silos needed to be lifted, levelled and structurally supported. Powered by a ZE5-Series electric pump the split-flow manifold used to operate multiple hydraulic cylinders.

# Split-Flow Manifolds



## Split-Flow Manifolds

The SFM-Series offer an economical solution for basic multi-point simultaneous lifting applications and enables a single operator to control a maximum of 4 lifting points from one manifold.

The Split-Flow Manifolds are equipped with pressure compensated flow control valves, to preset and limit advance and retract speed of each cylinder, allowing to move up to 4 cylinders simultaneously.

The SFM-Series provide more lifting and lowering control compared to AM-Series Control Manifolds. See flow control valve adjustments table below.

Minimum pump oil flow must be 1,40 l/min (ZE5-Series pumps) to deliver 0,15 - 0,25 l/min per cylinder. Several SFM-models can be connected parallel to the same pump to allow simultaneous operation of 8, 12 or 16 cylinders.

Higher flow pumps are required to achieve faster advance speeds. A 20% higher oil flow must be considered for a proper speed compensation.

Example : when using 4 cylinders: if oil flow of 0,45 l/min is required per cylinder, the pump oil flow must be:  
 $4 \times 0,45 = 1,8 \text{ l/min} + 20\% = 2,16 \text{ l/min}$ .

The maximum stroke deviation between the cylinders can reach up to 10% ( in 150 mm) depending on the cylinder pressure. Oil flow adjustment is also possible during cylinder operation by fine tuning using the flow control valves.

All cylinders connected to the SFM-manifold must have the same capacity (effective area). Both advance and retract speed are limited by the same valves. Use hoses of the same lengths to improve the accuracy of the hydraulic system. Improved precision when difference of pressures among the cylinders is within 200 bar.

## SFM Series



Inlet Connection:

**1x power pump**

Outlet Connections:

**Max. 4 cylinders**

Minimum Pump Flow Required:

**1,40 l/min**

Maximum Operating Pressure:

**700 bar**



### Load Holding

Use **V66 check valves** for load holding applications with single-acting cylinders.

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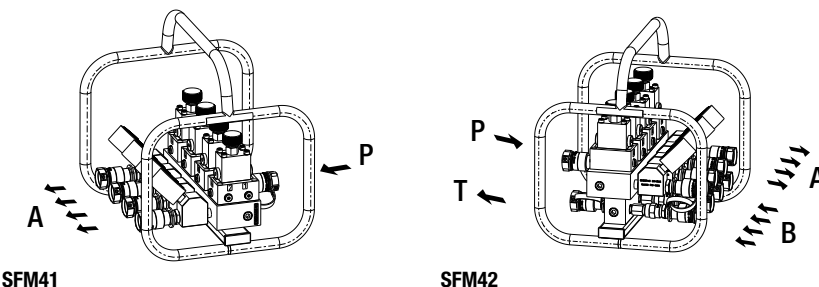
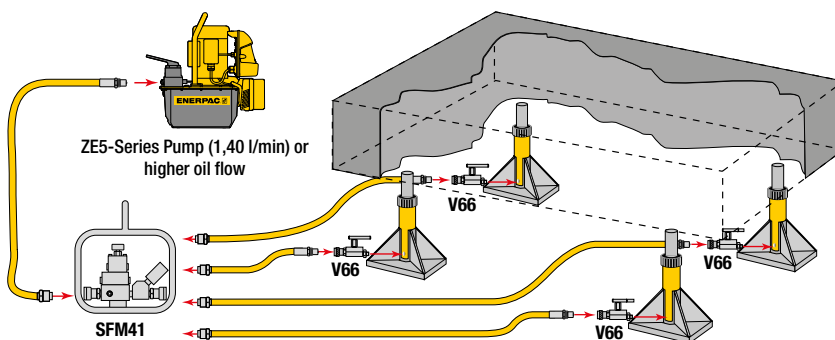
### High-Pressure Hoses

Enerpac offers a complete line of high-quality hydraulic hoses. To ensure the integrity of your system, specify only Enerpac hydraulic hoses. Enerpac recommends to use hoses of the same lengths between the SFM and cylinders to improve system accuracy.



### Flow Control Valves

The Split-Flow Manifold has pressure compensated flow control valves installed in each outlet line. The oil flow from the SFM-Manifold to each cylinder can be adjusted by turning the knob on the valve.



SFM41

SFM42

## ▼ SPLIT-FLOW MANIFOLDS

| For use with cylinders | Model Number | Minimum oil flow to each cylinder (l/min) | Female couplers included | Dimensions L x W x H (mm) | (kg) |
|------------------------|--------------|-------------------------------------------|--------------------------|---------------------------|------|
| 4x single-acting       | <b>SFM41</b> | 0,15                                      | CR400                    | 370 x 335 x 375           | 24   |
| 4x double-acting       | <b>SFM42</b> | 0,15                                      | CR400                    | 370 x 335 x 375           | 30   |

### Flow Control Valve Adjustments

| Number of Knob Turns | Oil Flow (l/min) | Number of Knob Turns | Oil Flow (l/min) |
|----------------------|------------------|----------------------|------------------|
| 1/2                  | 0,15             | 3                    | 1,9              |
| 1                    | 0,45             | 3 1/2                | 3,6              |
| 1 1/2                | 0,75             | 4                    | 5,6              |
| 2                    | 0,90             | 4 1/2                | 8,3              |
| 2 1/2                | 1,3              | Open                 | 10,3             |